

CLAIMS

What is claimed is:

1. A storm water detention system comprising a basin sized and positioned to accumulate storm water, an outlet, and a flow limiting structure impeding flow of water out of the basin through the outlet, the flow limiting inlet structure comprising:
a set of one or more baffles adapted to hinder the flow of surface contaminants into the outlet; and
a discharge riser adapted to control the discharge flow rate out of the basin to effectively capture sediment in the basin.
2. The system of claim 1 wherein the set of one or more baffles are a tiered set of nested baffles wherein:
each baffle that is nested within another baffle is positioned at a lower height than the baffle it is nested within;
the baffles of the set of baffles overlap each other;
the difference in height between the upper edge of any baffle that is nested within another baffle and the lower edge of the baffle it is nested within is at least 1/2 inch;
the lower inlet area of a baffle of the set of baffles is less than the non-overflow inlet area of the discharge riser; and
the number of baffles in the set of baffles is at least 3.
3. A flow limiting inlet structure comprising a set of one or more baffles adapted to inhibit the flow of surface materials through the baffle set, wherein the inlet area of the baffle set increases as fluid depth increases.
4. A flow limiting inlet structure comprising a discharge riser surrounded by a tiered set of nested baffles.
5. The structure of claim 4 wherein each baffle that is nested within another baffle is positioned at a lower height than the baffle it is nested within.
6. The structure of claim 5 wherein the baffles of the set of baffles overlap each other.

7. The structure of claim 6 wherein the difference in height between the upper edge of any baffle that is nested within another baffle and the lower edge of the baffle it is nested within is at least 1/2 inch.
8. The structure of claim 4 wherein the lower inlet area of a baffle of the set of baffles is less than the non-overflow inlet area of the discharge riser.
9. The structure of claim 4 wherein the lower inlet area of a baffle of the set of baffles is less than half the non-overflow inlet area of the discharge riser.
10. The structure of claim 4 wherein the lower inlet area of a baffle of the set of baffles is less than one third the non-overflow inlet area of the discharge riser.
11. The structure of claim 4 wherein the number of baffles in the set of baffles is at least X where X is one of 2, 3, and 4.